



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------------|
| 10/771,294 | 02/05/2004 | Masaru Izawa | 12014-0010DV | 3231 |
| 22902 | 7590 | 12/22/2008 | | |
| CLARK & BRODY 1090 VERMONT AVENUE, NW SUITE 250 WASHINGTON, DC 20005 | | | EXAMINER ZHENG, LOIS L | |
| | | | ART UNIT 1793 | PAPER NUMBER |
| | | | MAIL DATE 12/22/2008 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/771,294

Applicant(s)

IZAWA ET AL.

Examiner

LOIS ZHENG

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3 October 2008 has been entered.

Status of Claims

2. Claims 1-7 and 13-19 are canceled in view of applicant's amendment filed 3 October 2008. New claims 20-25 are added. Therefore, claims 8-11 and 20-25 are currently under examination.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 20-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 20-23 recite that the conversion coating step is carried out in the absence of silicate or ammonium ions. The instant specification does not provide literal support for these claim features.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-11 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geke et al. US 2002/0011281 A1(Geke).

Geke teaches a process of treating metal surfaces such as steel surfaces with a conversion coating solution comprising zinc, phosphate and manganese ions(abstract). In addition, Geke teaches that its coating solution may be absent of fluoride ions (paragraph [0033]).

Regarding claim 8, even though Geke does not explicitly teach that the steel material contains claimed 0.5-13% Cr, one of ordinary skill in the art would have found it obvious to have applied the process of Geke to the claimed Cr containing steel surface with expected success since claimed Cr containing steel surface is also a steel material which would have been suitable for the process of Geke in light of the teachings of Geke.

Regarding claim 9, Geke further teaches that the coating bath may further contain potassium ions for the adjustment of free acid(paragraph [0032]). Therefore, it

would have been obvious to one of ordinary skill in the art to have varied the amount of potassium ions in the coating solution of Geke via routine optimization in order to achieve desired free acid.

Regarding claims 10-11, Geke further teaches that the coating solution can be applied by immersion for a period of 1-8 minutes at a temperature of 30-70°C (paragraphs [0095-96]), which overlap the claimed coating time and temperature. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed coating time and temperature ranges from the disclosed ranges of Geke would have been obvious to one skilled in the art since Geke teaches the same utilities in its' disclosed coating time and temperature ranges.

Regarding claim 20, though Geke does not mention the surface treated steel material is a pipe, however, Geke teaches that said coating is applied to a metal surface (abstract). One of ordinary skill in the art would have found it obvious to have applied the process of Geke to a steel material of any shape including the claimed pipe with expected success. In addition, change in size, shape, or sequence of adding ingredients is prima facie obvious in the absence of new or unexpected results (see MPEP 2144.04).

Regarding claims 21-23, the coating process of Geke does not require the presence of silicate and ammonium ions.

Regarding claim 24, Geke further teaches that the coating step is followed by a rinsing treatment with water and a drying treatment as claimed (paragraph [0113-0114]).

Regarding claim 25, the process of Geke forms a conversion film on the surface of steel via a chemical reaction as claimed.

7. Claims 8-11, 20 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esler (US 3,798,074) in view of "Metals Handbook Desk Edition" p 1157-1158.

Esler teaches a method for forming a protective surface coating on a steel substrate (abstract, column 5 line 64), said coating comprising: Zn (column 6 line 61), phosphoric acid (column 3 line 45), potassium in the amount of typically 0.2-0.6 mole per ml. (column 3 lines 22-23), which falls within the presently claimed coating composition (cl. 8, 9). Esler does not require fluoride ions for said coating. Esler teaches stainless steel can be subjected to said coating (column 5 lines 45-46, 65-66), which meets the amended limitation of "a steel composition containing 0.5 - 13% Cr".

Regarding claims 8-11, though Esler does not mention said coating is a 'conversion' coating, because the protective coating taught by Esler has a substantially identical chemical composition, then substantially the same chemical conversion properties are expected to result. Chemical conversion coatings are further discussed in "Metals Handbook Desk Edition", wherein Zn or Mn containing phosphate coatings are sprayed or immersion coated, and activated at temperatures ranging 32-99°C (Table 2, p 1158) and time of >5 min (Fig. 4, p 1158) depending on the coating thickness desired. It would have been obvious to one of ordinary skill in the art to apply the chemical coating taught by Esler over time and temperatures taught by "Metals Handbook Desk

Edition" because "Metals Handbook Desk Edition" teaches said parameters are sufficient for providing a given coating weight on a steel substrate.

Regarding claim 20, though Esler does not mention the surface treated steel material is a pipe, however, the prior art of Esler teaches that said coating is applied to a metal substrate (column 5 line 48-49). It would have been obvious to one of ordinary skill in the art to select a variety of metal substrate shapes, such as a pipe, given the disclosure of Esler. Changes in size, shape, or sequence of adding ingredients is prima facie obvious in the absence of new or unexpected results (see MPEP 2144.04).

Regarding claim 24, Esler further teaches curing of the coating(col. 6 lines 32-33) which reads on the claimed drying step. In addition, one of ordinary skill in the art would have found it obvious to have incorporated a rinsing with water step after the coating solution is applied in the process of Esler in order to remove excess coating solution on the metal substrate.

Regarding claim 25, since the protective coating process as taught by Esler uses a substantially identical chemical composition, then substantially the same chemical conversion properties are expected to result as evidenced by "Metals Handbook Desk Edition".

Response to Arguments

8. Applicant's arguments filed 3 October 2008 have been fully considered but they are not persuasive.

In the remarks, applicant argues that the claim limitations as recited in new claims 21-23 with respect to the conversion treatment step being carried out absent of silicate and ammonium ions do not constitute new matter according to MPEP.

The examiner does not find applicant's argument persuasive because MPEP 2175(i) clearly states that "Any negative limitation or exclusionary proviso must have basis in the original disclosure" and "Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement." In addition, the instant specification and the instant claims use open-ended transitional phrase "containing" which do not exclude the presence of additional components. Therefore, one of ordinary skill in the art would not have recognized with certainty that the coating solution of the instant invention does not contain silicate and ammonium ions as recited in claims 21-23.

Applicant further argues that Esler does not teach a conversion coating and presents Exhibits A-B to support applicant's argument.

The examiner would like to remind the applicant that any objective evidence must be factually supported by an appropriate affidavit or declaration to be of probative value. See *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984) and MPEP 716.01(c). Since Exhibits A-B are not presented as part of affidavit or declaration, the examiner does not consider them of probative value. In addition, section 2 of Exhibit A is not sufficient to show that Esler does not teach a conversion coating because the coating film as discussed in section 2 of Exhibit A is not produced

by the same coating method as Esler. In particular, the coating film is not cured at the same temperature as Esler and the exact coating composition is not discussed. Same arguments apply to Exhibit B.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LOIS ZHENG whose telephone number is (571)272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

LLZ

Application/Control Number: 10/771,294

Page 9

Art Unit: 1793

12/17/08